

**CLAIMS**

What is claimed is:

1. A method for externally managing a data within an asynchronous pipeline, wherein said asynchronous pipeline includes a data path and a control path, said method comprising:

assigning a data tag value to said data;

sending said data tag value into said control path when said data value is sent into said data path such that said data tag value passes through said asynchronous pipeline in parallel with said data; and

comparing said data tag value with a control tag value; and

in response to said data tag value matching said control tag value, permitting said data to pass to a next stage within said asynchronous pipeline.

1           2.    The method of claim 1, wherein said step of assigning  
2           a data tag value comprises associating an encoded binary  
3           sequence with said data.

1           3.    The method of claim 2, wherein said comparing step  
2           further comprises decoding said encoded binary sequence to  
3           identify said data tag value.

1           4.    The method of claim 1, further comprising delivering  
2           said data tag value to a processor that is in  
3           communicative contact with said given stage.

5.    The method of claim 4, further comprising:

          assigning a control tag value with respect to said  
data tag value; and

          delivering said control tag value from said processor  
to said given stage.

6.    The method of claim 4, wherein said given stage  
includes a logic function for processing said data, said  
method further comprising:

          determining whether or not said control tag value  
matches said data tag value; and

          in response to determining that said control tag  
value matches said data tag value, delivering a control  
instruction from said processor to said logic function.

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1 8. A system for externally managing data within an  
2 asynchronous pipeline, wherein said asynchronous pipeline  
3 includes a data path and a control path, said system  
4 comprising:

5 processing means for assigning a data tag value to  
6 said data;

7 processing means for sending said data tag value into  
8 said control path when said data is sent into said data  
9 path such that said data tag value passes through said  
10 asynchronous pipeline in parallel with said data; and

11 logic means for comparing said data tag value with a  
12 control tag value, and in response to said data tag value  
13 matching said control tag value, permitting said data to  
14 pass to the next stage within said asynchronous pipeline.

1 9. The system of claim 8, wherein said processing means  
2 for assigning a data tag value comprises processing means  
3 for associating an encoded binary sequence with said data.

1 10. The system of claim 9, further comprising logic means  
2 for decoding said encoded binary sequence to identify said  
3 data tag value.

1 11. The system of claim 8, further comprising processing  
2 means for delivering said data tag value to a processor  
3 that is in communicative contact with said given stage.

12. The system of claim 11, further comprising:

processing means for assigning a control tag value  
with respect to said data tag value; and

processing means for delivering said control tag  
value from said processor to said given stage.

13. The system of claim 11, wherein said given stage  
includes a logic function for processing said data, said  
system further comprising:

logic means for determining whether or not said  
control tag value matches said data tag value; and

processing means responsive to said control tag value  
matching said data tag value for delivering a control  
instruction from said processor to said logic function.

processing means for associating said data tag value with said data within a memory device.